

Lesson 8 Pesticides Notes.notebook

PESTICIDES

Pest = an organism that people consider harmful or inconvenient. Ex: weeds, insects, fungi and rodents

Pesticide = chemicals designed to kill pests.

Four categories of pesticides:

- 1) Insecticide (insects) Ex: DDT
- 2) Herbicide (weeds) Ex: Round Up
- 3) Fungicide (mould/fungi) Ex: Captan
- 4) Bactericide (bacteria) Ex: penicillin
 → antibiotic

Why do we use them?

- 1) Financial - 30% of crops are lost a year which is millions of \$ lost.
- 2) Disease Control - Malaria and West Nile are transported by insects.

First Generation Pesticides:

- Use of pesticides started ~ 500 B.C with the use of sulfur to repel insects.
- Over the years different means of repellents were used:
 - arsenic, lead and mercury used on crops.
 - nicotine from tobacco plants used to kill aphids
 - plant extracts from chrysanthemums and legumes (peas, beans, etc) used to kill insects.

Second Generation Pesticides:

- Chemicals that are made in a laboratory
- An example is DDT which is a very powerful insecticide
- DDT is dangerous because it is only soluble in fat and not water. The result is that the toxins can not be released through water (sweat, urine), but are stored in the fatty tissue of animals.

How pesticides are good:

- prevent destroying of agriculture such as crops
- helps maintain disease such by spraying for mosquitoes to help with malaria and west nile virus.

How pesticides are bad:

- we end up harming ourselves as we are at the top of the food chain so we end up with a lot of the pesticides in ourselves.
- ends up killing the wildlife as it gets in to the water which they drink.

Bioamplification is a buildup of toxins (pesticides) in a food chain. At each trophic level the level of toxin gets higher, enough to cause some sort of problem for the top carnivore

